Remarks

Claims 1-16 are pending in this application. Applicants have not amended the claims. Applicants respectfully request favorable reconsideration of this application.

The Examiner rejected claims 1, 8, 9, 13, 14, and 16 under 35 U.S.C. § 102(b) as being anticipated by U.S. patent 4,984,172 to Luminari. The Examiner rejected claims 2, 7, 10, and 15 under 35 U.S.C. § 103(a) as being unpatentable over Luminari in view of U.S. patent 4,168,489 to Ervin. The Examiner rejected claims 3-6, 11, and 12 under 35 U.S.C. § 103(a) as being unpatentable over Luminari in view of Ervin and further in view of U.S. patent 5,490,100 to Kableshkov.

Luminari does not disclose the present invention as recited in independent claims 1 and 9 since, among other things, Luminari does not disclose a method or apparatus for imaging characteristics of an object that includes detecting light exiting from the object after penetrating a surface of the object and being scattered by the object, creating a digital representation of the object based on the scattered light and also light reflected from the surface, and reading out from the digital representation information on a geometric profile of the object and information on the light scattered by the object in a predetermined area around the profile. The Examiner asserts that Luminari discloses detecting light exiting from an object after penetrating an object. However, neither the drawings nor the written description support such an interpretation.

For example, at col. 3, lines 1-20, Luminari describes two types of defects shown in Fig.

5. The defects include:

(a) defects consisting of over-accentuated chromatic discontinuities **on the surface of the panel**, such as dark knots, glue or paint stains or spots or stains or spots of other substances with which the panel has accidentally been in contact, and so on. This category of defects is collectively indicated by the numeral 38.

(b) defects consisting of over-accentuated geometrical discontinuities **on the surface of the panel**, such as long splits, round holes, normally knot-holes caused by the coming away of knots on the surface layer of the panel, protuberance more or less irregular in shape due for example to imperfect joining of the veneers making up the surface layer of the panel or due to splinters of wood left glued to the surface of the panel, and so on. This category of defects is collectively indicated by the numeral 39.

Clearly, Luminari is only concerned with detecting over-accentuated chromatic discontinuities **on the surface of the panel** and over-accentuated geometrical discontinuities **on the surface of the panel**.

To carry out detecting such surface defects, Luminari discloses measuring only the maximum intensity of the reflected light in each column of the sensor, and the position where this maximum occurs, which is the same as measurement of the diffusely reflected light intensity. To carry this out, Luminari discloses directing a laser beam 42 at the panel. The laser

beam is reflected back to the sensor 40 oriented at the angle 41, as shown in Fig. 6. Fig. 6 does not illustrate and the specification does not describe the laser beam penetrating the surface of the panel. Fig. 6 is not a cross-section of the panel. Rather, Fig. 6 illustrates the surface of the panel. This is supported by the specification as col. 3, lines 28-32, which describes the laser projecting a beam 42 transversely on the surface of the panel.

Luminari discloses that making measurements by finding the position of the reflected light on the sensor "the position of each of which is determined with respect to the system coordinates X,Y,Z," as described at col. 3, lines 34-36. The intensity of the measured reflected light is used in this position to find the chromatic defects, as "measurement is made of the ratio between the light intensity of each point and the mean of the light-intensity of all points on the beam". The chromatic defects (a) can then be found for points which "have a light intensity very different from the mean".

On the other hand, the claimed invention can distinguish defects which do not appear as chromatic differences in the reflected intensity, but which can be measured by measurement of the amount of light scattered within the object and measured around the laser impact position. The scattered light is measured in a "predetermined area around said profile".

In view of the above, Luminari does not disclose all elements of the invention as recited in claims 1, 8, 9, 13, 14, and 16. Since Luminari does not disclose all elements of the invention as recited in claims 1, 8, 9, 13, 14, and 16, the invention, as recited in claims 1, 8, 9, 13, 14, and 16, is not properly rejected under 35 U.S.C. § 102(b). For an anticipation rejection under 35 U.S.C. §

102(b) no difference may exist between the claimed invention and the reference disclosure. *See Scripps Clinic and Research Foundation v. Genentech, Inc.*, 18 U.S.P.Q. 841 (C.A.F.C. 1984).

Along these lines, anticipation requires the disclosure, in a cited reference, of each and every recitation, as set forth in the claims. *See Hodosh v. Block Drug Co.*, 229 U.S.P.Q. 182 (Fed. Cir. 1986); *Titanium Metals Corp. v. Banner*, 227 U.S.P.Q. 773 (Fed. Cir. 1985); *Orthokinetics, Inc. v. Safety Travel Chairs*, Inc., 1 U.S.P.Q.2d 1081 (Fed. Cir. 1986); and *Akzo N.V. v. U.S. International Trade Commissioner*, 1 U.S.P.Q.2d 1081 (Fed. Cir. 1986).

The combination of Luminari and Ervin does not suggest the present invention as recited in claims 2 and 7, which depend from claim 1, or claims 10 and 15, which depend from claim 9, since, among other things, the combination of Luminari and Ervin does not suggest a method or apparatus for imaging characteristics of an object that includes detecting light exiting from the object after penetrating a surface of the object and being scattered by the object, creating a digital representation of the object based on the scattered light and also light reflected from the surface, and reading out from the digital representation information on a geometric profile of the object and information on the light scattered by the object in a predetermined area around the profile. As discussed above, Luminari does not suggest the present invention as recited in claims 1 and 9. Ervin suggests a compression method applied to a word processing system to increase the amount of text displayed within a screen on a display. Providing Luminari with the system suggested by Ervin would not overcome the above-described deficiencies of Luminari. Therefore, the combination of Luminari and Ervin does not suggest the present invention as recited in claims 2, 7, 10 and 15.

The combination of Luminari, Ervin and Kableshkov does not suggest the present invention as recited in claims 3-6, 11, and 12 since, among other things, the combination does not suggest a method or apparatus for imaging characteristics of an object that includes detecting light exiting from the object after penetrating a surface of the object and being scattered by the object, creating a digital representation of the object based on the scattered light and also light reflected from the surface, and reading out from the digital representation information on a geometric profile of the object and information on the light scattered by the object in a predetermined area around the profile. As discussed above, the combination of Luminari and Ervin does not suggest the present invention as recited in claims 1 and 9. Providing the combination of Luminari and Ervin with the system suggested by Kableshkov would not overcome the above-described deficiencies of Luminari and Ervin. Therefore, the combination of Luminari, Ervin and Kableshkov does not suggest the present invention as recited in claims 3-6, 11, and 12.

In view of the above, the references relied upon in the office action, whether considered alone or in combination, do not disclose or suggest patentable features of the claimed invention. Therefore, the references relied upon in the office action, whether considered alone or in combination, do not anticipate the claimed invention or make the claimed invention obvious. Accordingly, Applicants request withdrawal of the rejection based upon the cited references.

In conclusion, Applicants respectfully request favorable reconsideration of this case and early issuance of the Notice of Allowance.

If an interview would advance the prosecution of this application, Applicants respectfully urge the Examiner to contact the undersigned at the telephone number listed below.

The undersigned authorizes the Commissioner to charge fee insufficiency and credit overpayment associated with this communication to Deposit Account No. 22-0261.

Dated: July 24, 2008

Respectfully submitted,

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